

Date: Wednesday, 3/7/2007 8:39:51 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: 407 HIGH AFT X-TUBE ASSEMBLY
Job Number	: 31040		
Estimate Number	: 10528		
P.O. Number	: <i>N/A</i>	Part Number	: D407667205
This Issue	: 3/7/2007	Drawing Number	: D407-667-245 REV D
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: <i>N/A</i>	Drawing Revision	: D
Previous Run	: 31039	Material	: <i>N/A</i>
Written By	: <i>[Signature]</i>	Due Date	: 3/30/2007
Checked & Approved By	: <i>[Signature]</i> 07.03.07	Qty:	1 Um: Each
Comment	Est Rev: 05.09.02 Add holes for compatibility with Bell Skidtubes KJ/JLM Est Rev: D Added Magnobond, Rubber Cushion & Clamps 07-02-19 JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Revised with 33023



Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels as per PPP D407-667-205CHG004

KS 07.03.12

2.0	D6011115	Crosstube Material
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part number Description Batch

1 D6011-115 Crosstube *19510*

Check OD = 2.750"; ID = 1.450"

BC 07.03.15

3.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE
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Comment: MORI SEIKI CNC LATHE LARGE

1-Fill tube with sand & install plugs DT8531 on both ends as per Folio FA248

2-Turn first side as per Folio FA248

3-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D407-667-245.

BC 07.03.16

4.0	QC1	INSPECT ALL DIM TO DIM SHEET
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Comment: INSPECT ALL DIM TO DIM SHEET

BC 07.03.16

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 3/7/2007 8:39:51 AM
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Job Number: 31040

Part Number: D407667205

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Turn second side as per Folio FA248

2-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D407-667-245

3-Remove sand and plugs

4-Scribe part # and batch # using vibrating stylus as per Dwg D407-667-245

Inside of Cuff (Do not engrave on outside of tube)

BG 07-03-16 (1)

6.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Polish entire outside surface of crosstube

JD 7-3-19

9.0

(7.0)

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

6.0

(8.0)

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

BG 07-03-16

(1)

7.0

(9.0)

QC8

SECOND CHECK



Comment: SECOND CHECK

SA 07-03-16

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

Ensure no sand is in the tube before alodine.

JD 7-3-19

11.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Bend tube as per Dwg D407-667-245 using CNC bender program 407 Aft and Folio FT

EL 7/13/19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Drawing Name: 407 HIGH AFT X-TUBE ASSEMBLY

Job Number: 31040

Part Number: D407667205

Job Number:



Seq. #:

Machine Or Operation:

Description:

12.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

205-01

13.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D407-667-245. Drill all (3) top holes

2-Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D407-667-245 Check dimensions between holes on all four sides.

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.

4-Drill pilot holes using drill Jig DT8583 & DT8584 as per Dwg D407-667-245. Drill only the top (2) holes.

5-Drill & ream the top (2) holes to finish size using drill Jig DT8583 & DT8584 as per Dwg D407-667-245

6-Drill Aft rivet holes using drill Jig DT8789 as per Dwg D407-667-245. Note: Aft side has 3x top holes.

7-Drill Fwd rivet holes using drill Jig DT8789 as per Dwg D407-667-245. Drill only the top (3) holes.

8-C'sink holes as per Dwg D407-667-245. Allow rivet to sit below surface to compensate for paint.

9-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D407-667-245

P70
7-6-18
JD 7-6-18

14.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1.

JD 7-6-18

15.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION.





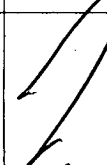


Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

For 16-20
①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: 2 Date: 07/07/06
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
0705-01	13.0	Root cause: Tube was bent too high. Resulting in .295" above tolerance. IT happens once and a while during bending.	 Q51042	Trim the bottom of the cuffs, 0.200". Drill the cuff holes @ .780, max tolerance, check the fit with a saddle set-up.	 7-6-10	 070620	 Q51042	 0705-01

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Drawing Name: 407 HIGH AFT X-TUBE ASSEMBLY

Job Number: 31040

Part Number: D407667205

Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

QC5

INSPECT WORK TO CURRENT STEP



SP/ 07-06-20 @



Comment: INSPECT WORK TO CURRENT STEP

17.0

OUTSIDE SERVICE

OUTSIDE SERVICES



Comment: Sub-Contracting OUTSIDE SERVICES

Liquid Penetrant Inspection as per QSI 0380r

Issue P/O: 4012 LPI as per ASTM 1417

Level 2 Attach copy of NDT results to work order

C 207106/21 @

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Inspect for transit damage

Ensure copy of NDT results attached to work order.

SP/ 07-06-26 @

19.0

QC6

DIMENSIONAL CHECK



Comment: Inspect for damage & ensure results are as per Dwg D407-667-245

En 07-06-27 @

20.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

} 27 07-06-28

21.0

QC14

Inspect Spray Paint



Comment: Inspect Spray Paint

Wrap in plastic bag to protect from scratches

m 07-06-29

(1)

22.0

D2856400

Abrasion Strip



Comment: Qty.: 1.3524 f(s)/Unit Total : 1.3524 f(s)

Pick:

Qty Part number Description Batch

2 D2856-400(Cut to 7.73") Abrasion Strip

32020 27 07-07-04

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Customer: CU-DAR001 Dart Helicopters Services

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Job Number: 31040

Part Number: D407667205

Job Number:



Seq. #:

Machine Or Operation:

Description :

23.0

D2873043

Nut Plate Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part number

Description Batch

2 D2873-043

Nut Plate

30449

RT 07-06-27

24.0

D2873045

Nut Plate Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part number

Description Batch

2 D2873-045

Nut Plate

30450

RT 07-06-27

25.0

D28941

2.750 Support



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part number

Description Batch

1 D2894-1

Support

B19163

RT 07-07-03

26.0

D31901

Chafing Shield



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part number

Description Batch

2 D3190-1

Chafing Shield

20773

RT 07-07-03

27.0

D3595

Rubber Cushion (per sq ft)



Comment: Qty.: 0.0246 sf(s)/Unit Total : 0.0246 sf(s)

Rubber Cushion

2X .750" X 4.30"

Batch:

32894

RT 07-07-05

28.0

MS20601AD4W8

RIVET



Comment: Qty.: 14.0000 Each(s)/Unit Total : 14.0000 Each(s)

Pick:

Qty Part number

Description Batch

14 MS20601AD4W8 Rivet

102850

RT 07-06-27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 407 HIGH AFT X-TUBE ASSEMBLY

Job Number: 31040

Part Number: D407667205

Job Number:



Seq. #:

Machine Or Operation:

Description :

29.0

MS2192022

Clamp(per MIL-DTL-8783C)



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part number Description Batch

4 MS21920-22

Clamp

102389

RT

07-07-04

30.0

MS2192025

Clamp(per MIL-DTL-8783C)



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Clamp(per MIL-DTL-8783C)

Batch: 103897

RT 07-07-04

31.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Install abrasion strips as per QSI 035 using DT8674. Install chafing shield as per Dwg D407-667-245. Note: (3) top holes should be facing up.

2-Install support with magnobond and install clamps as per Dwg D407-667-245. Torque clamps to 80-100 in lb

A/R Magnobond

Batch: 103628

RT

07-07-03

1:00 PM

RT
07-07-05

3-Install nut plates as per Dwg D407-667-245. Touch-up rivet heads with Imron paint.

RT 07-06-27

32.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

En 02/07/05 (X1)

33.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

34.0

AN534A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bolt

Batch: 1102850

X

7/7/5 SP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: 2 Date: 07/07/06
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 3/7/2007 8:39:51 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 407 HIGH AFT X-TUBE ASSEMBLY

Job Number: 31040

Part Number: D407667205

Job Number:



Seq. #:

Machine Or Operation:

Description :

35.0

MS21042L5

Nut



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Nut

+1 Batch: 4103446 ✓

36.0

AN510A

Bolt



Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:Packing Kit

Qty Part number

Description Batch

10 AN5-10A

Bolt

4102404 ✓

37.0

AN532A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:Packing Kit

Qty Part number

Description Batch

4 AN5-32A

Bolt

415032- ✓

38.0

AN960JD516

Washer



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Pick:Packing Kit

Qty Part number

Description Batch

18 AN960JD516

Washer

4103694 ✓

7/7/5 SP

39.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

6/7/5

① C207107105①

40.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D407-667-205

Location:

PPP Rev:

APP

33128

6/20/07/05

41.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

① 6/20/07/06

u 07.07.06

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			


NOTE: Date & initial all entries

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
								

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	31040
Description: Crosstube Assembly		Part Number:	D407-667-245
Inspection Dwg: D407-667-245 Rev: D		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

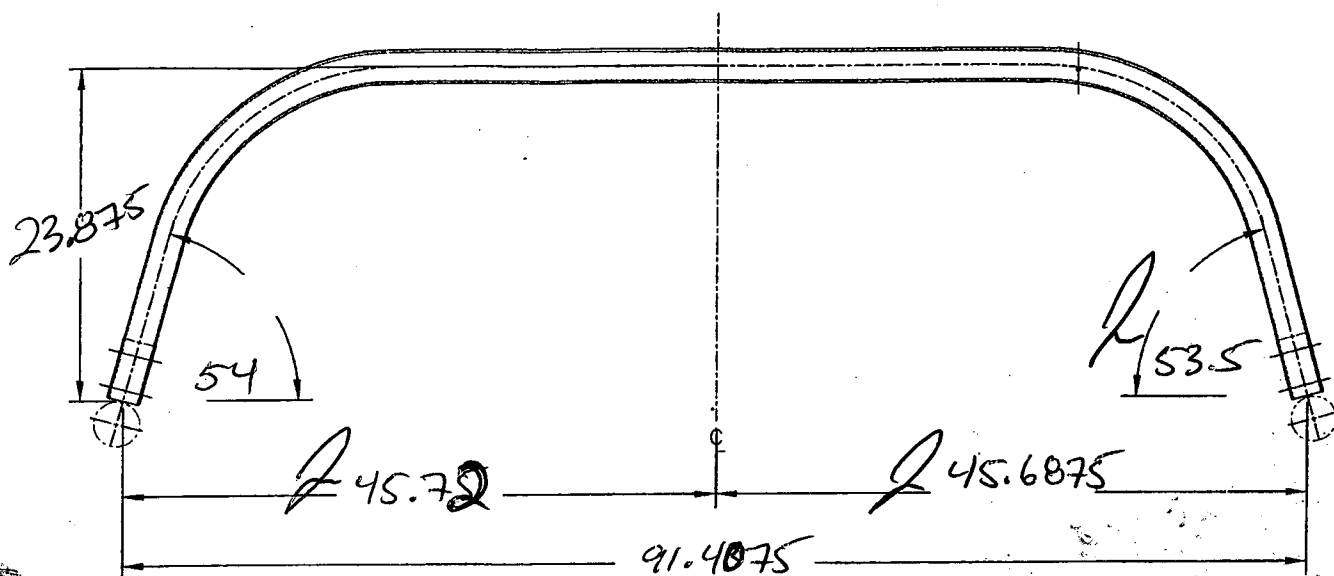
Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.490	+0.005/-0.000	2.492	✓		
	1.832	+0.005/-0.000	1.835	✓		
	1.838	+0.005/-0.000	1.842	✓		
	1.892	+0.005/-0.000	1.896	✓		
	2.052	+0.005/-0.000	2.056	✓		
	2.206	+0.005/-0.000	2.210	✓		
	2.521	+0.005/-0.000	2.524	✓		
	2.633	+0.005/-0.000	2.635	✓		
	4.10	+/-0.030	4.10	✓		
	4.978	+/-0.030	4.978	✓		
	2.040	+0.000/-0.010	2.035	✓		
	0.125	+/-0.010	.125	✓		
	R0.063	+/-0.010	.063	✓		
	R0.500	+/-0.010	.500	✓		
SIDE B	2.490	+0.005/-0.000	2.492	✓		
	1.832	+0.005/-0.000	1.836	✓		
	1.838	+0.005/-0.000	1.842	✓		
	1.892	+0.005/-0.000	1.896	✓		
	2.052	+0.005/-0.000	2.056	✓		
	2.206	+0.005/-0.000	2.210	✓		
	2.521	+0.005/-0.000	2.523	✓		
	2.633	+0.005/-0.000	2.635	✓		
	4.10	+/-0.030	4.10	✓		
	4.978	+/-0.030	4.978	✓		
	2.040	+0.000/-0.010	2.035	✓		
	0.125	+/-0.010	.125	✓		
	R0.063	+/-0.010	.063	✓		
	R0.500	+/-0.010	.500	✓		
	112.91	+/-0.020	112.91	✓		

Measured by:	BG	Audited by:	SD	Prototype Approval:	N/A
Date:	07-03-16	Date:	07-03-16	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.04.21	New Issue (P/O D407-667-205)	KJ/RF	
B	06.03.09	Dwg Rev updated	KJ/JLM	
C	06.03.30	Tolerance revised for 4.978 dimension	KJ/JLM	
D	07.02.19	Dwg Rev updated	KJ/JLM	

DART AEROSPACE LTD	Work Order:	31040
Description: Crosstube High Aft (407)	Part Number:	D407-667-205
Inspection Dwg: D407-667-245 Rev: D		Page 1 of 1

Required Dimension	Min	Max
Height	23.46	23.58
1/2 Span	45.86	45.98
Angle	54	56
Total Span	91.72	91.96



Comments
height is 0.295" above tolerance. See attached e-mail to NRR.

QC15 Inspection	<i>[Signature]</i> 051042
Date	0704.24

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM <i>[Signature]</i>	<i>[Signature]</i>

DART

DESIGN PH	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. D407-667-245	REV. D SHEET 1 OF 3
DATE 07.02.07		TITLE CROSSTUBE ASS'Y (407 HIGH AFT)	SCALE NTS
A	02.05.13	NEW ISSUE	
B	03.05.21	ADD CHAFING SHIELD	
C	05.07.26	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	
D	07.02.07	ADD VIEW FOR OEM SKID HOLES, ROTATE ORIENTATION OF CLAMPS SECTION F-F, REMOVE -851 ABRASION STRIP, ADD MAGNOBOND 6398, ADD CUSHION	

RELEASED

07.02.14 H

Qty	Part Number	Description
X	D407-667-245	CROSSTUBE ASSEMBLY (407 HIGH AFT)
1	D6011-115	CROSSTUBE
2	D2856-400-773	ABRASION STRIP
2	D2873-043	NUT PLATE
2	D2873-045	NUT PLATE
1	D2894-1	SUPPORT
2	D3190-1	CHAFING SHIELD
2	D3595-075-430	RUBBER CUSHION
14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
4	MS21920-22	CLAMP
2	MS21920-25	CLAMP (OR MS21920-24)

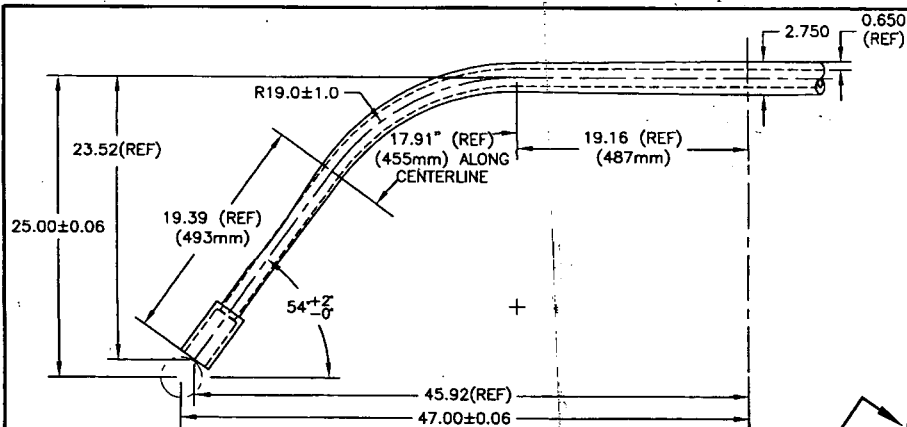
GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6011-115
FINISHED LENGTH = 112.91±0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 6 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
- 9) INSTALL D2856-400-773 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, PER QSI 035.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) INSTALL D2894-1 CENTER SUPPORT USING A 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 12) INSTALL MS21920-25 CLAMPS WITH D3595-075-430 RUBBER CUSHIONS TO SECURE D2894-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE CROSSTUBE SUPPORT.
NOTE: MS21920-24 CLAMPS CAN BE USED TO ACCOMMODATE VARYING DIAMETERS. ENSURE THERE IS A MINIMUM OF 1.5 THREADS IN SAFETY ON THE NUTS.
- 13) TORQUE CLAMPS 80 TO 100 IN-LB.
- 14) INSTALL D3190-1 CHAFING SHIELDS SO THAT OVERLAP IS ON BOTTOM SIDE OF CROSSTUBE OPPOSITE D2894-1 SUPPORT.

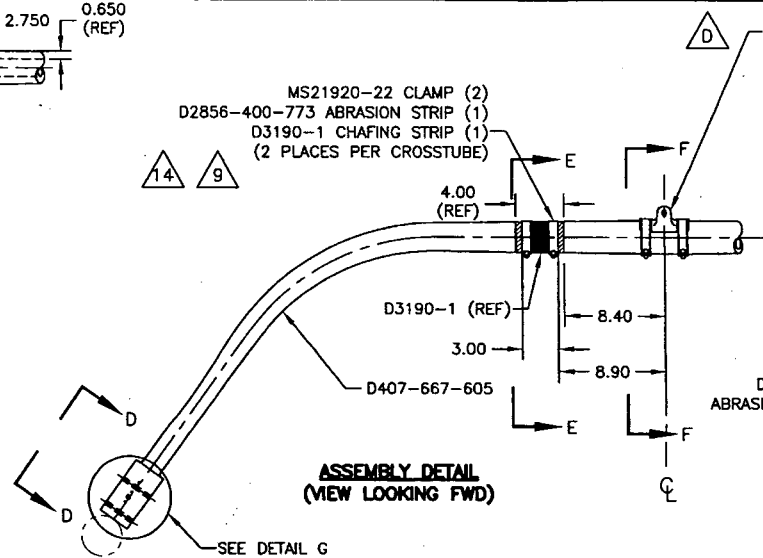
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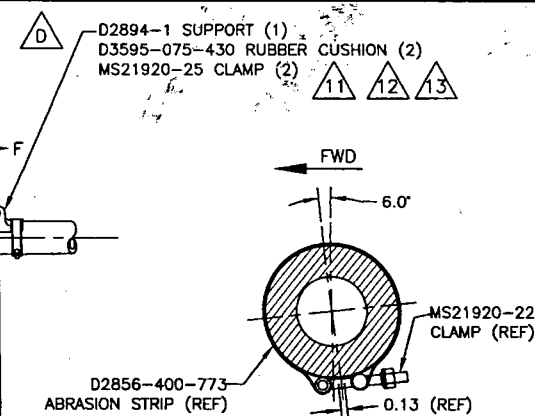
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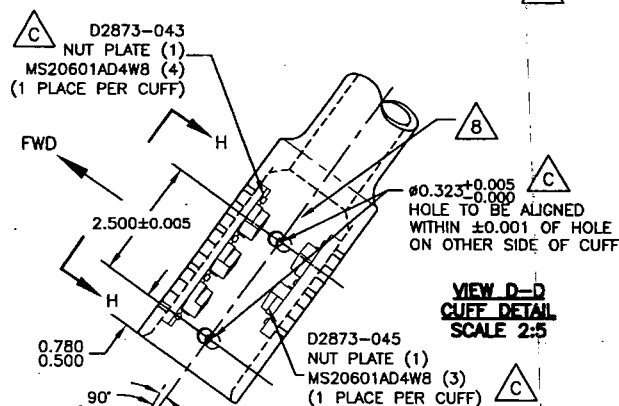
BENDING DETAIL 6



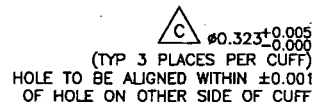
**ASSEMBLY DETAIL
(VIEW LOOKING FWD)**



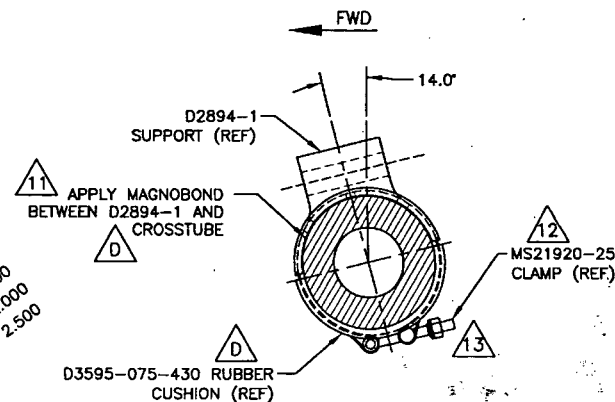
**SECTION E-E
SCALE 2:5**



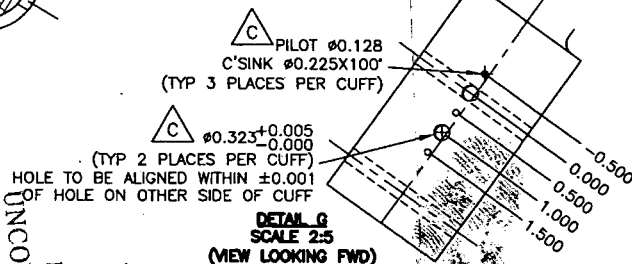
**VIEW D-D
CUFF DETAIL
SCALE 2:5**



**VIEW H-H
SCALE 2:5
(VIEW LOOKING AFT, ROTATED)**



**SECTION F-F
SCALE 2:5**



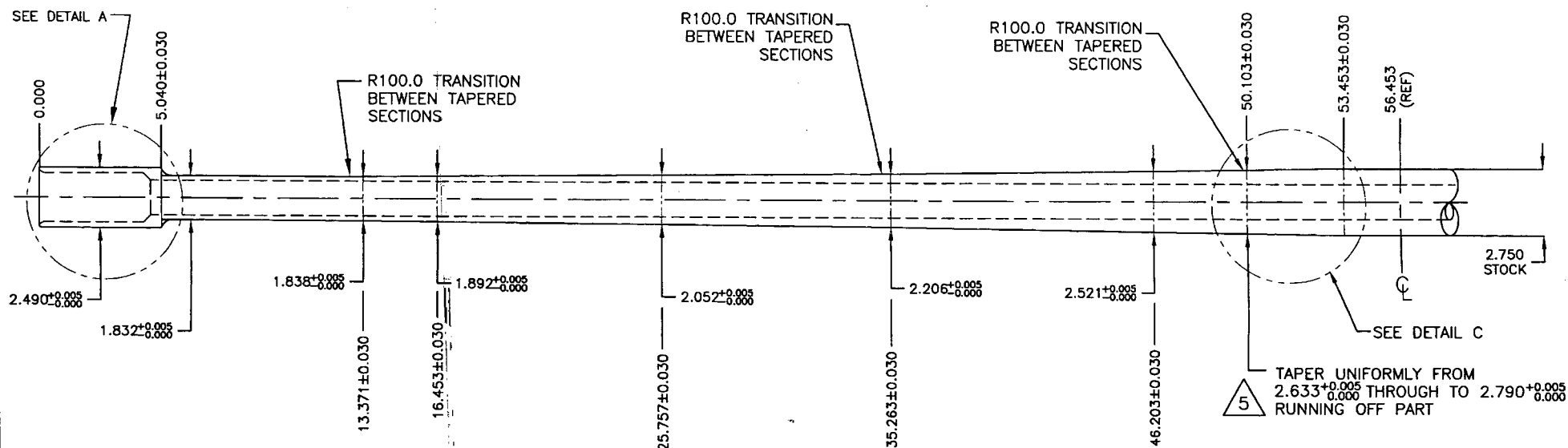
**DETAIL G
SCALE 2:5
(VIEW LOOKING FWD)**

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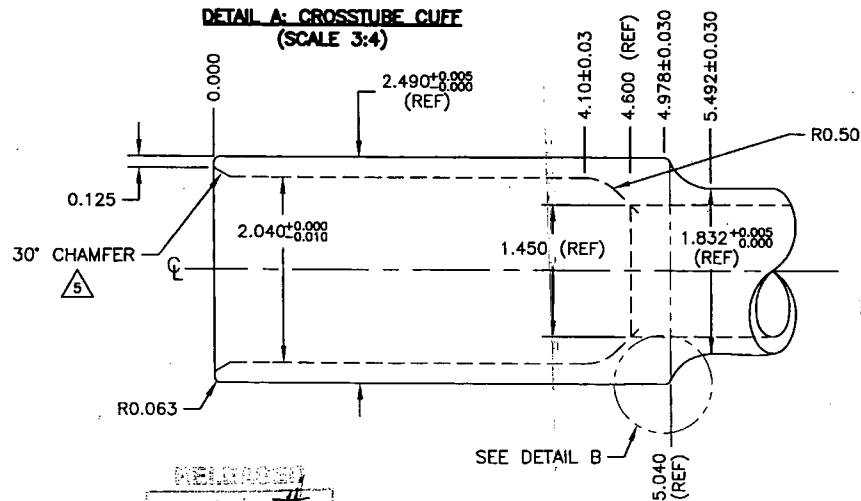
DESIGN	PH	DRAWN BY	PH	DART	DART AEROSPACE LTD. HAWKSBURY, ONTARIO, CANADA
CHECKED	#	APPROVED	#	DRAWING NO.	REV. D
DATE	07.02.07	TITLE	CROSSTUBE ASS'Y (407 HIGH AFT)	D407-667-245	SHEET 2 OF 3
		SCALE	1:10		

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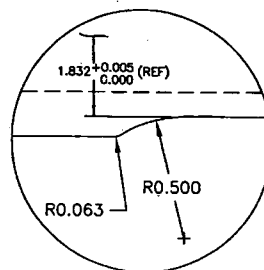
D407-667-245 MACHINING DETAIL

DETAIL A: CROSSTUBE CLIFF
(SCALE 3:4)



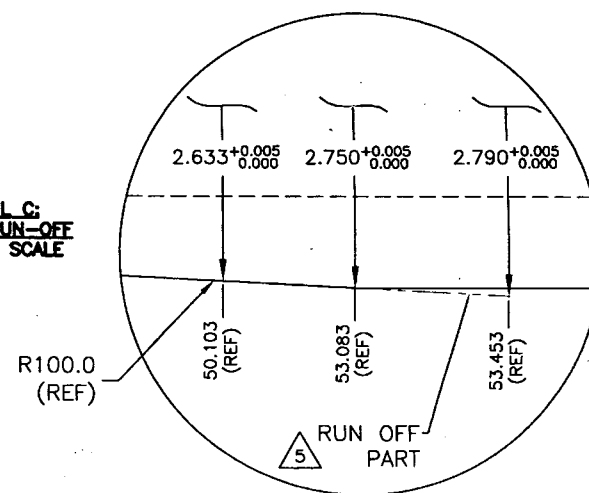
RELEASED

07.02.14



DETAIL B: CLIFF
TRANSITION
SCALE 2:1

DETAIL C:
TAPER RUN-OFF
NOT TO SCALE



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DESIGN	PH	DRAWN BY	PH	DART	DART AEROSPACE LTD. HAMPSHIRE, ENGLAND, CANADA
CHECKED	PH	APPROVED	PH	DRAWING NO.	REV. D
DATE	07.02.07	TITLE	CROSSTUBE ASS'Y (407 HIGH AFT)	D407-667-245	SHEET 3 OF 3
		SCALE	1:4		

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Jason Murdoch

From: David Shepherd [dshepherd@dartaero.com]
Sent: Thursday, April 26, 2007 10:38 AM
To: 'Jason Murdoch'
Cc: 'L Lacelle'
Subject: FW: Drawings
Importance: High
Attachments: Drawing 001.jpg; Drawing 002.jpg; Drawing.jpg

B31360 is acceptable as is.

B31363 is acceptable as is.

With respect to B31040, I agree it is acceptable to move the holes up the cuff and trim the bottom off the cuff, if necessary. Drill holes with jigs pushed right up and check with a saddle for clearance.

David

From: Jason Murdoch [mailto:jmurdoch@dartaero.com]
Sent: Wednesday, April 25, 2007 9:02 AM
To: 'David Shepherd'
Subject: FW: Drawings
Importance: High

Hi Dave, we have a couple of tubes that are high, and out of my tolerance. The one that concerns me the most is the D407. Can we compensate for the height by drilling up higher on the cuff without interfering with the tube and saddle fit, and maybe remove some of the bottom of the cuff if necessary? The 407 fits not bad at all in the jig, other than being too high, and a tad narrow. What are your thoughts on the 212's? I think these aren't that bad, just high. The 212's fit good in the table jig. If it's possible, I would like a response today, because I'm leaving for 5 days, thanks.

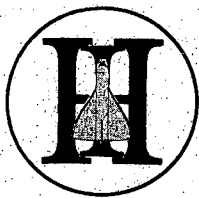
jmurdoch@dartaero.com

Q.C. COORDINATOR

From: Brigitte Golden [mailto:bgolden@dartaero.com]
Sent: Wednesday, April 25, 2007 10:33 AM
To: 'Jason Murdoch'
Subject: Drawings

Brigitte Golden
Order Processing
Dart AerospaceLtd.

23.875



HeathAir

INTERNATIONAL (1991) INC.

681 Ave. Lepine, Dorval, Québec H9P 1G3
Tél.: (514) 636-1000 • Fax: (514) 636-0031

W.O. N° 36755

A.M.O. Number: 46/90

NON-DESTRUCTIVE TESTING REPORT

AIRCRAFT / COMPONENT INFORMATION

REGISTRATION:

MODEL/TYPE:

SERIAL NUMBER:

TOTAL HR/LDG:

OPERATED BY:

BASED AT:

INSPECTION REQUIREMENTS

Carry out FPI of (16) cross tube (external surface) as per ASTM E-1417-05 and the Dart QSI 038, Section 4.1.1 (on file at client) - parts delivered to HeathAir.

Qty (3) P/N D206-667-201 S/N's B30318, B30442 & B30441

Qty (4) P/N D206-667-203BL S/N's B32672, B32458, B32671 & B32457

Qty (1) P/N D407-667-205 S/N B31040 *sn 07/06/07*

Qty (1) P/N D206-667-201 S/N B30440

Qty (4) P/N D212-664-201 S/N's B32148, B32146, B32149 & B32147

Qty (3) P/N D206-667-103BL S/N's B32667, B32455 & B32456

☐ RADIOGRAPHY

☐ ULTRASONIC

☒ PENETRANT

☐ MAGNETIC PARTICLE

☐ EDDY CURRENT

INSPECTION REPORT

Fluorescent penetrant inspection was performed in accordance with the above requirements on (16) cross tubes.

Note: A Level 3 penetrant was substituted for the requested Level 2 (3 is more sensitive)
Ardrox 970P25E Batch #04B503.

All (16) cross tubes passed inspection.

THE MAINTENANCE DESCRIBED ABOVE HAS BEEN PERFORMED IN ACCORDANCE WITH
THE APPLICABLE STANDARDS OF AIRWORTHINESS

INSPECTED BY:

S. FLECHER

DATE June 22, 2007

INSPECTION STAMP(S) Not Required

CUSTOMER INFORMATION

CUSTOMER: Dart Aerospace

P.O. NUMBER

4012

ADDRESS:

CONTACT NAME:

Chantel

LABOUR

@

\$

MATERIALS

@

TRAVEL EXPENSES

@

GST

HOTEL EXPENSES

@

PST

INVOICE NO.

TOTAL \$

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